



**What do we know**

# **About Breast Cancer Risk**





## Known and possible **risk factors**

### for breast cancer:

- Being a woman
- Getting older
- Family history of breast cancer
- Benign breast problems
- Early exposure to ionizing radiation
- Having children late in life or not at all
- Longer exposure to estrogen and progesterone
- Being overweight
- Lack of exercise
- Drinking alcohol
- Eating fewer vegetables, fruits, whole grains and fiber
- Exposure to chemicals
- Never breast feeding
- Unknown factors?

## What Do We Know About

# Breast Cancer?

Cancer is the uncontrolled growth and spread of abnormal cells. ☞ Cancer can start anywhere in the body. ☞ Some people are born with abnormal cells. ☞ Sometimes, changes in cells happen later.

Risk factors either increase or decrease the chance of getting breast cancer. ☞ Risk factors are not necessarily things that cause cancer. ☞ Having one or more risk factors does not mean that you will get breast cancer. ☞ We still don't understand many pieces of the breast cancer puzzle.

## Age

A woman is more likely to develop breast cancer as she gets older. Most breast cancer cases are found in women over 50. Men also get breast cancer but it is much more rare than in women.

New science suggests that cell changes that can turn into cancer may start when women are young. Most breast cancer can take 20 years or more to develop. There are many different steps in the cancer process that involve a variety of things that go on both inside and outside the body.

Establishing healthful habits early in life may reduce the risk of breast cancer later.

It's never too late to take steps to reduce risk.

## Family History

A woman is more likely to get breast cancer if she has a close relative with breast cancer.

However, more than 9 out of every 10 women who get breast cancer don't have breast cancer in their families.

## Benign Breast Problems

Most lumps and other breast changes that women get are benign, which means they are not cancer.

However, one type of benign breast problem, called *atypical hyperplasia*, can increase the chances of getting breast cancer later.

Talk to your nurse or doctor if you notice changes in your breasts.

Get a breast exam by a doctor or nurse every year.

## Ionizing Radiation

People might come in contact with ionizing radiation from medical x-rays, radiation therapy, atomic fallout or leaks from nuclear reactors.

Early exposure to ionizing radiation has been linked to breast cancer. The effect is greatest in young girls because their breast cells can be harmed more easily. If the exposure comes later in life, the risk is much smaller.

When getting x-rays, ask the technician to shield your (or your daughter's) breasts and keep a record of all x-rays you and your child have had.

Mammography uses very low doses of radiation. Ask your doctor when you should start getting regular mammograms.

## Pregnancy and Breastfeeding

The cells in a woman's breasts change during pregnancy and during breastfeeding. These changes may help protect her breasts against cancer.

Women who have their first baby in their 20s have a smaller risk of breast cancer than women who have their first baby when they are older, or who never have children.

Women who breastfeed for several months may have a slightly smaller chance of getting breast cancer than women who have never breast fed.

## Estrogen and Progesterone

Estrogen and progesterone are hormones that work together to signal normal breast cells to divide during every monthly menstrual cycle. They also can play a role in the development and growth of some breast tumors.

Women are exposed to these hormones longer if they started their period before age 12, or completed menopause after age 55.

Longer exposure to estrogen has been linked to higher breast cancer risk.

Some women take hormone pills containing estrogen or estrogen plus

progesterone after menopause. For some women, this hormone therapy reduces the effects of the hormone changes that come with menopause. Women who take hormone therapy for a long time after menopause have a greater chance of getting breast cancer.

If your doctor talks about extra hormones, like birth control pills or hormone therapy, ask how they might affect your health and chances of getting breast cancer.

## Weight and Height and Body Type

After menopause, women with extra body fat have a greater chance of getting breast cancer because fat cells can produce estrogen.

Taller women have a slightly greater chance of getting breast cancer. They often have more breast lobules where most cancers start. Having more breast lobules is not related to breast size.

Women who carry their weight more around the middle (apple-shaped) have an increased breast cancer risk after menopause.

## Alcohol, Nutrition and Exercise

Women who do not drink alcohol have a smaller chance of getting breast cancer. The B vitamin, folic acid, may reduce the effects of high alcohol use on breast cancer risk.

Women who eat more vegetables, fruits and whole grains may have a smaller chance of getting breast cancer.

Women who exercise regularly may have a smaller chance of getting breast cancer.

### Tips to reduce risk:

- Maintain a healthy weight.
- Be active every day. Even a little exercise makes a difference.
- Show children good exercise and eating habits.
- Eat a healthy diet with plenty of whole grains, fruits, and vegetables.
- Limit alcoholic drinks to less than two drinks per day.
- Read BCERF Tip Sheet *Eating Well and Staying Active* for more ideas.

## Chemicals

We are exposed to many naturally occurring and synthetic chemicals during our lives. Many chemicals are essential for life. Others can be harmful. Some of the chemicals we may come in contact with where we live, work or play can affect health.

Scientists are studying whether some chemicals are related to breast or other types of cancer.

Some chemicals may act like extra estrogen.

The effect of harmful chemicals may be greatest in young girls because their breast cells can be harmed more easily.

### Tips to reduce risk:

- Reduce use of chemicals when possible.
- Carefully follow the directions on the label to help keep chemicals from entering the body.
- Read BCERF Tip Sheet *Reducing Exposure to Environmental Chemicals* to learn practical ways to protect yourself and our environment. For more detailed information see BCERF Fact Sheet #45 *Environmental Chemicals and Breast Cancer Risk, Why Is There Concern?*

*Each of these risk factors explains only a small piece of the breast cancer puzzle. But as scientists learn more, women can make changes that might help in the fight against breast cancer.*

The Division of Cancer and Environment provides science-based information on environmental factors and cancer risk.

**Division of Cancer and Environment**

Sprecher Institute for Comparative Cancer Research  
Department of Clinical Sciences, CVM Box 31  
College of Veterinary Medicine  
Cornell University  
Ithaca, NY 14853-6401

**Telephone number**

(607) 254-2893

**Fax number**

(607) 254-4730

**Email address**

breastcancer@cornell.edu

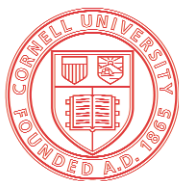
**Web site**

<http://envirocancer.cornell.edu>

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Sprecher Institute for Comparative Cancer  
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